

**Notice of Allowability**

Application No.

10/517,528

Applicant(s)

ESPRIMONT ET AL.

Examiner

Gail Verbitsky

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date ____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>12/13/04</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                   | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other ____.   |

### EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

1. Claims 6-14 are allowed because the prior art fail to teach a device for measuring an exchange surface area  $A$  between a reagent and a wall of a housing containing this reagent, comprising:

- a housing designed to receive the reagent,
- a first heat flux sensor for measuring the first heat flux  $F1$  per surface unit, this heat flux sensor being arranged at the external wall of the housing in a zone opposed to a first zone of its internal face in secure contact with the reagent,
- a second heat flux sensor for measuring the second heat flux  $F2$  per surface unit, this heat flux sensor being arranged at the external wall of the housing in a zone opposed to a second zone of its internal face in secure absence of contact with the reagent,
- a third heat flux sensor for measuring the third heat flux  $F3$  per surface unit, this heat flux sensor being arranged at the external wall of the housing in a zone opposed to a third zone of its internal face, said third zone being both in presence and in absence of contact with the reagent, in combination with the remaining limitations of claims 7-14.

2. Claims 1-5 are allowed because the prior art fail to teach a method for determining an exchange area  $A$  between a reagent and a wall of a housing containing this reagent, in order to determine a power  $Pr$  of a thermal reaction inside the housing and a heat exchange coefficient  $U$  between the reagent and the wall of the housing, comprising:

- measuring a first heat flux  $F1$  per surface unit taken in a first zone of the wall in secure contact with the reagent,
- measuring a second heat flux  $F2$  per surface unit taken in a second zone of the wall in secure absence of contact with the reagent,
- measuring a third heat flux  $F3$  per surface unit taken in a third zone of the wall comprising, in a continuously overlapping manner, both a zone of the wall in secure contact with the reagent next to a zone of the wall in secure absence of contact with the reagent,
- Calculating, based on proportions of the measurements of the first, second, and third heat flux which have been carried out, the actual level  $h$  of the reagent inside the housing, so that the exchange area  $A$  between the reagent and the wall of the housing containing this reagent can be determined continuously and in real time, based on the calculated actual level  $h$  of the reagent, and with respect to any given geometry of the housing, in combination with the remaining limitations of Claims 2-5.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gail Verbitsky whose telephone number is 571/ 272-2253. The examiner can normally be reached on 7:30 to 4:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571/ 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GKV

  
Gail Verbitsky  
Primary Patent Examiner, TC 2800

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